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Surgical interventions of Freiberg's disease: A systematic review

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ABSTRACT

Background: Freiberg's disease is an osteonecrosis of the metatarsal head bone. Numerous surgical interventions can be provided; however, the literature is limited in systematic reviews discussing the various options. The study aimed to systematically review the quantity and quality of literatures exploring the surgical interventions.

Methods: Fifty articles were found to be relevant for assessing the efficacy of common surgical interventions. The articles were assigned a level of evidence (I–V) to assess their quality. Next, the studies were reviewed to provide a grade of recommendation (A–C, I).

Results: Two studies were found at level III that explored osteotomy and autologous transplantation; the other studies were level IV–V. There is poor evidence (grade C) in supporting of joint sparing and joint sacrificing for Freiberg's disease.

Conclusion: Poor evidence exists to support the surgical interventions for Freiberg's disease, higher quality trials are needed to support the increasing application of these surgical techniques.

Level of Evidence: Level IV, Systematic review.

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1. Introduction

Freiberg's disease is an osteonecrosis of the metatarsal head bone, which was firstly described in 1914 with a report of six cases [1]. The causes of Freiberg's disease is multifactorial, but the most

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